

Analysis of Deterrence

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Report Documentation Page

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Agenda

- What is deterrence?
- A review of Analytic Methods
- Case Studies
- Implications and prospects for deterrence



Motivation



“the instruments of war do have a role to play in preserving the peace. And yet this truth must coexist with another - that no matter how justified, war promises human tragedy.”

-- President Obama’s Nobel Peace speech

“(I want) to take the lessons of the past in nuclear deterrence and apply them moving forward” – ADM Mike Mullen





Deterrence:

Is..

- A **coercive** strategy which aims to *maintain the status quo* by forcing an adversary to reconsider the costs and benefits of their actions
- Requires:
 - The ability to inflict harm to something the adversary values
 - The Will to inflict this harm
 - **Effective communication** of the ability and will
- Can sum these up in one word: **CREDIBILITY**

Is challenging to study because...

- We only gain partial information about effectiveness.
 - When we (or others are attacked) we can conclude that our deterrence was insufficient
 - When attacks do not happen, it *may* be because of our deterrent, or another effect.
- We never truly know the motivations / utilities of our adversaries.
 - Their private utilities are probably 'unknowable'

No one wants to be in the position of finding a problem both important for study and without good analytic methods to tackle it. - Jervis



Analytic Methods

- Critical Thinking / Systems Analysis
 - Kent's First Strike Stability
- Statistical Analysis: fitting models to datasets
 - Difficulties: Coding data, model specification, descriptive statistics. Presupposes model format.
 - Huth, Signoriono
- Game Theory
 - Difficulties: presupposes an ability to compute utilities
 - Schelling, Zagare and Kilgour
- History
 - Difficulties: May not be applicable to future campaigns
 - Meersheimer, Keegan, others



General Conclusions

- Deterrence requires all the levers of national power – it is not simply a military problem – (all methods)
- Deterrence is most likely to fail when:
 - At least one side perceives the campaign will be ‘quick’ and ‘easy’ (History, Strike Stability)
 - At least one side perceives the campaign feels that they are in a ‘use or lose’ situation (History, Game Theory)
 - Deterrence postures irrelevant if not effectively communicated (History, Statistics)
 - Communication Fails (History)
- The objective of deterrence cannot be ‘Everything – Everywhere’ – we should prioritize what we wish to deter.



Who is deterrable?

Deterrable

- Nations that seek to minimize costs
- Nations that feel secure in their nuclear (and other) deterrents

Not deterrable

- Groups who do not seek to minimize costs
 - Because they don't count them
 - Because they have ideological imperatives to act
 - Because they seek conflict
- Nations who feel they are in a use / loose situation.



Nuclear Deterrence: The Gold Standard?

- Kent's model of Nuclear Deterrence
- Advantages: tractable, simple, elegant
- Disadvantages: Measures the 'costs' of attacking first versus the 'costs' of attacking second
- The closer this ratio is to unity, the more stable the system is.
- Sources of Stability:
 - Clear Communications
 - Assured Retaliation
- Sources of Instability:
 - “Splendid First Strike”
 - Deterrence capability made irrelevant:
 - Communication lapses i.e. Saddam Hussein
 - “Mandates” – Political or personal motives that force a solution
 - Germany WWII?



Kent's Model of deterrence

First strike Stability Index:

$$FSSI = \frac{C_{A,1}}{C_{A,2}} \bullet \frac{C_{B,1}}{C_{B,2}}$$

Where: C represents costs; several definitions have been used

Ratios don't tell the whole story; magnitude of potential costs key as well.



True or False?

No nuclear armed nation has entered in to direct, force-on-force ‘Shooting War’ with another nuclear armed nation?



False!

1969 Sino-Soviet Conflict

1999 Kargil War (India / Pakistan)



How do Nations Measure Costs / Utility?

- (at least) Three metrics:
- Utility among the community of Nations:
 - Declaratory Statements (NPR, Treaties, etc)
 - Measurable, or at least predictable
- Domestic Utility:
 - Demographics, politics
 - Also measurable or at least predictable
- Utility to the ruling elites:
 - Difficult to measure
- For small groups or ‘rogues’ consequence is measured against the leaders, not the nation writ large.
- Data Sources: Huth (1988), EUgene, POLITY datasets.



Case Study: Germany vs. Britain / France “Phony War”

Allied Decision

- Britain and France believed that WWII would be a re-fight of WWI
- Diplomatic Considerations
- Assumed that their attack against Germany could begin after:
 - Setting up Defense
 - Applying Economic Pressure
 - Defeating Italy
- Did not Foresee Blitzkrieg!

Germany's Decision

- Hitler's Generals: Opposed to attacking immediately (Military Considerations)
- Hitler: Attack immediately (Political / Diplomatic Considerations)
- Impasse through winter of 1939
- Adoption of Game-Changing capability (Blitzkrieg), and attack 1940!



Deterrence: Prospects



Status of United States' Deterrence Today:

- Strategic Forces: Largest and most combat-ready in the world
- Afghanistan Campaign:
 - 9/11 attack to Taking of Kabul: 92 days
- Iraq Campaign:
 - From beginning to Baghdad: 41 Days
- But...

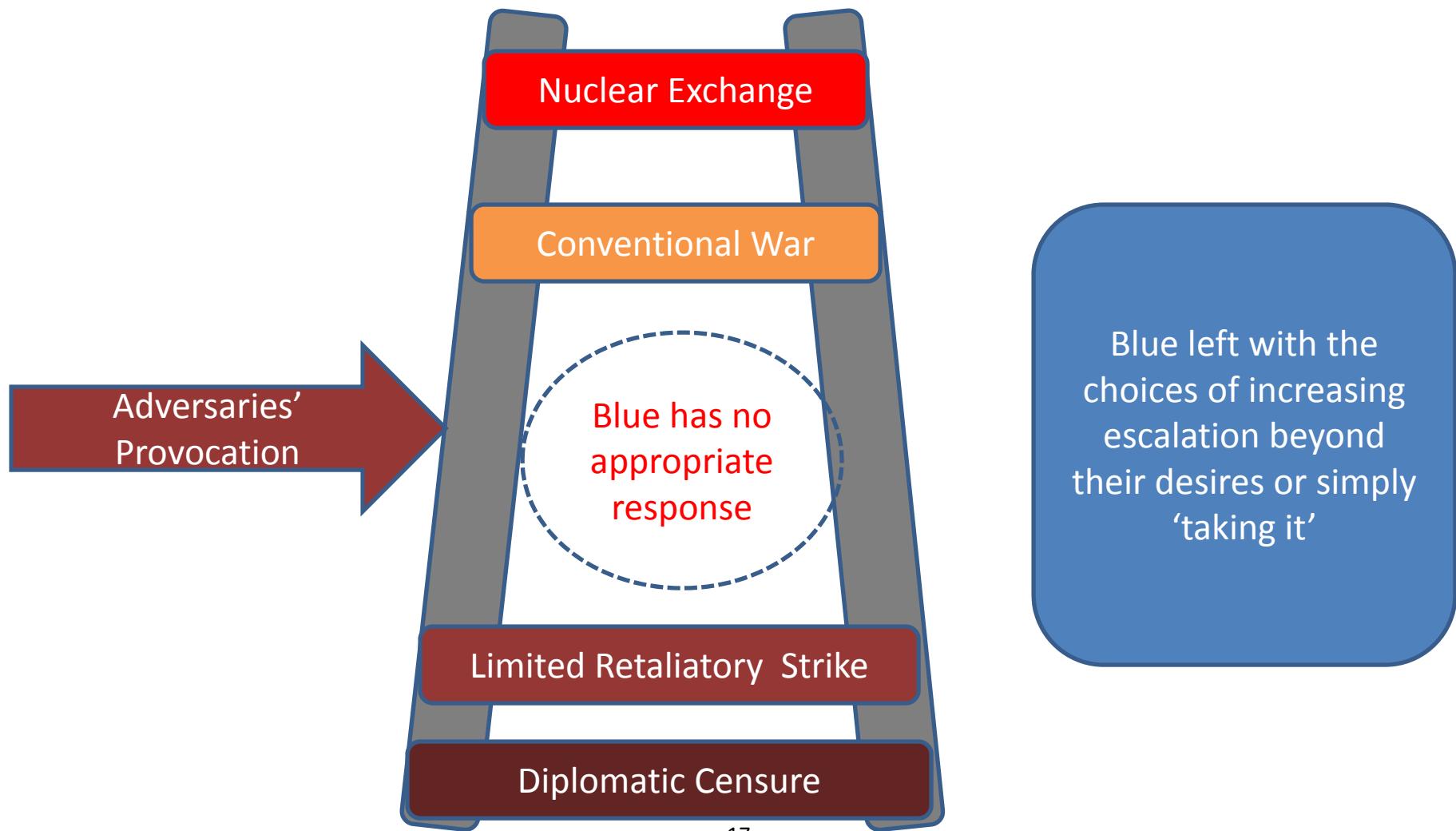


Deterrence: Other Domains

- Nuclear Terrorists
- Cyber



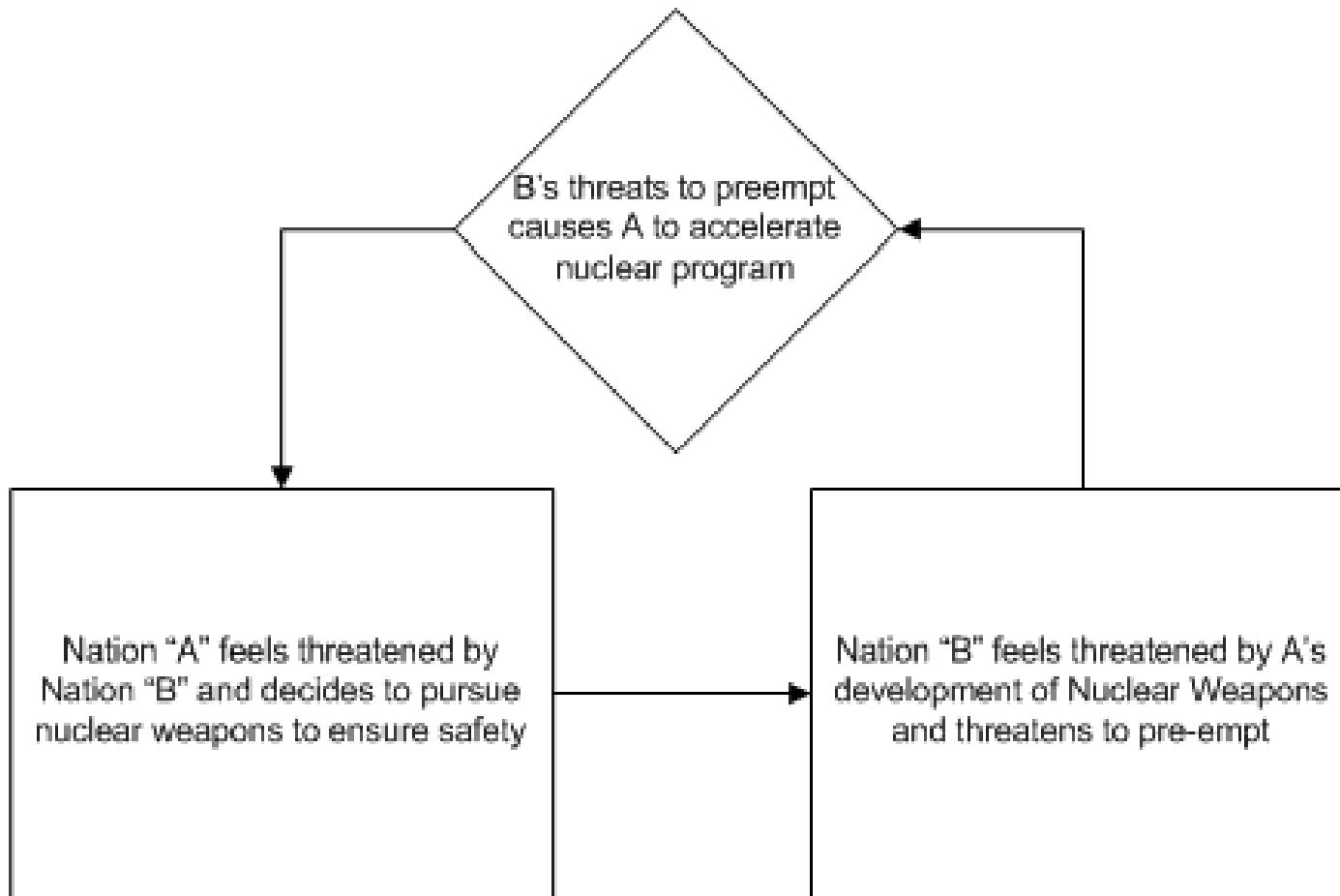
Missing Rungs on the “ladder of Escalation”





A Paradox (from First Strike Stability)

- “Proliferation – Escalation” Paradox:





Fin.